

CLAIMS

What is claimed is:

1. A vehicular mirror assembly, comprising:
a base;
a mirror housing having a reflective element therein, the mirror housing being mounted to the base for at least a normal path of movement between a retracted position where the mirror housing is adjacent the base and an extended position where the mirror housing is distal to the base;
an actuator operatively mounted between the base and the mirror housing for selectively moving the mirror housing with respect to the base through the normal path of movement; and
a slip clutch associated with the actuator for accommodating impeded movement of the mirror housing with respect to the base.
2. A vehicular mirror assembly according to claim 1, wherein the impeded movement comprises attempted movement of the mirror housing by the actuator beyond an outermost limit of the extended position.
3. A vehicular mirror assembly according to claim 1, wherein the impeded movement comprises attempted movement of the mirror housing by the actuator beyond an innermost limit of the retracted position.
4. A vehicular mirror assembly according to claim 1, wherein the impeded movement comprises movement of the mirror housing by the actuator within the normal path of movement when acted upon by an opposing force.
5. A vehicular mirror assembly according to claim 4, wherein the opposing force is an external force applied to the mirror housing during movement through the normal path of movement.
6. A vehicular mirror assembly according to claim 1, wherein the actuator comprises a drive assembly comprising a drive screw driven by a motor, and a drive nut threadably received thereon and connected to the mirror housing for extending the mirror housing between the retracted and extended positions when the drive nut moves longitudinally along the drive screw under action by the motor.

7. A vehicular mirror assembly according to claim 6, wherein the slip clutch enables the drive screw to be rotated with the rotation of the motor when the movement of the drive nut is not impeded.

8. A vehicular mirror assembly according to claim 6, wherein the slip clutch enables the motor to rotate when the movement of the drive nut is impeded.

9. A vehicular mirror assembly according to claim 6, wherein the slip clutch enables the drive screw to be rotated when the drive nut is moved longitudinally along the drive screw and the motor does not rotate.

10. A vehicular mirror assembly according to claim 6, wherein the drive screw comprises at least one cylindrical surface, the slip clutch comprises at least one arcuate finger, and the at least one arcuate finger is biased into contact with the at least one cylindrical surface so that the slip clutch rotates with the cylindrical surface during the normal path of movement and slips with respect to the cylindrical surface during impeded movement to prevent damage to the motor.

11. A vehicular mirror assembly according to claim 10, wherein a spring biases the at least one arcuate finger into contact with the at least one cylindrical surface.

12. A vehicular mirror assembly according to claim 10, wherein the at least one cylindrical surface comprises a plurality of coaxial, spaced cylindrical surfaces.

13. A slip clutch for a vehicular mirror assembly, the vehicular mirror assembly comprising a base, a mirror housing having a reflective element therein, the mirror housing being mounted to the base for at least a normal path of movement between a retracted position where the mirror housing is adjacent the base and an extended position where the mirror housing is distal to the base, and an actuator operatively mounted between the base and the mirror housing for selectively moving the mirror housing with respect to the base through the normal path of movement, wherein the slip clutch is associated with the actuator for accommodating impeded movement of the mirror housing with respect to the base.

14. A slip clutch according to claim 13, wherein the impeded movement comprises attempted movement of the mirror housing by the actuator beyond an outermost limit of the extended position.

15. A slip clutch according to claim 13, wherein the impeded movement comprises attempted movement of the mirror housing by the actuator beyond an innermost limit of the retracted position.

16. A slip clutch according to claim 13, wherein the impeded movement comprises movement of the mirror housing by the actuator within the normal path of movement when acted upon by an opposing force.

17. A slip clutch according to claim 16, wherein the opposing force is an external force applied to the mirror housing during movement through the normal path of movement.

18. A slip clutch according to claim 13, wherein the actuator comprises a drive assembly comprising a drive screw driven by a motor, and a drive nut threadably received thereon and connected to the mirror housing for extending the mirror housing between the retracted and extended positions when the drive nut moves longitudinally along the drive screw under action by the motor.

19. A slip clutch according to claim 18, wherein the slip clutch enables the drive screw to be rotated with the rotation of the motor when the movement of the drive nut is not impeded.

20. A slip clutch according to claim 18, wherein the slip clutch enables the motor to rotate when the movement of the drive nut is impeded.

21. A slip clutch according to claim 18, wherein the slip clutch enables the drive screw to be rotated when the drive nut is moved longitudinally along the drive screw and the motor does not rotate.

22. A slip clutch according to claim 18, wherein the drive screw comprises at least one cylindrical surface, the slip clutch comprises at least one arcuate finger, and the at least one arcuate finger is biased into contact with the at least one cylindrical surface so that the slip clutch rotates with the cylindrical surface during the normal path of movement and slips with respect to the cylindrical surface during impeded movement to prevent damage to the motor.

23. A slip clutch according to claim 22, wherein a spring biases the at least one arcuate finger into contact with the at least one cylindrical surface.

24. A slip clutch according to claim 22, wherein the at least one cylindrical surface comprises a plurality of coaxial, spaced cylindrical surfaces.